

5,268,777 to Sato and U.S. Patent No. 5,798,744 to Tanaka. The Applicant respectfully traverses the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

There is no proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Brody, Sato and Tanaka or to combine reference teachings to achieve the claimed invention. MPEP § 2142 states that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. It is respectfully submitted that the Official Action has failed to carry this burden. While the Official Action relies on various teachings of the cited prior art to disclose aspects of the claimed invention and asserts that these aspects could be modified in the manner asserted in the Official Action, it is submitted that the Official Action does not adequately set forth why one of skill in the art would combine the references to achieve the features of the present invention.

The test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (emphasis in original). KSR International Co. v. Teleflex Inc., 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1396 (2007). Thus, it is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

The Official Action relies on Brody to allegedly teach "a resinous layer (124) formed over one of the flexible substrates" and concedes that "Brody fails to disclose ... a pair of insulating substrates" and "a layer comprising resin covering the thin film transistor" (page 3, Paper No. 20080927). The Official Action relies on Sato to allegedly teach "a pair of insulating substrates" and on Tanaka to allegedly teach "a layer (145) comprising resin covering the thin film transistor" (*Id.*). The Official Action asserts that "[it] would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Brody to include a pair of insulating substrates as disclosed in Sato because it aids in providing a flexible panel" and that "[it] would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Brody to include a layer comprising resin covering the thin film transistor as disclosed in Tanaka because it aids in protecting the TFT" (pages 3-4, *Id.*). The Applicant respectfully disagrees and traverses the above assertions in the Official Action.

The Official Action asserts that the electrically insulating varnish 124 of Brody corresponds to a resinous layer formed over one of a pair of flexible insulating substrates, as presently claimed (Figure 1 of Brody reproduced below).

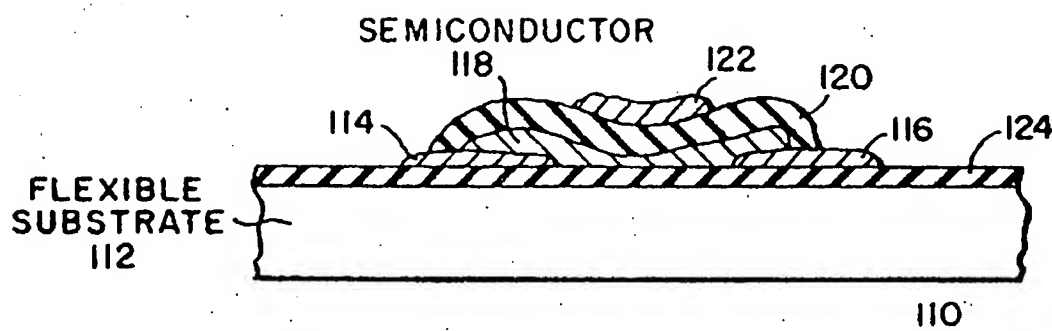


FIG. 1.

Brody's electrically insulating varnish 124 is used for electrically insulating a field effect transistor from a flexible metal substrate 112 (see column 1, lines 56-58). The Official Action concedes that Brody's flexible metal substrate 112 is not an insulating substrate and asserts that it would have been obvious to use Sato's substrates, described at column 7, lines 27-33 (substrates 202 and 211 made of glass, inorganic material, ceramic, organic material, plastic, acrylic resin, vinyl fluoride or the like), in place of Brody's flexible metal substrate. However, the Applicant respectfully submits that there would no longer be proper or sufficient reason to continue to provide Brody's electrically insulating varnish 124 over the substrates if the metal substrate 112 is replaced with Sato's substrates.

As noted in MPEP § 2143.01, Part V, if a proposed modification renders the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Also, as noted in MPEP § 2143.01, Part VI, if a proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). The Official Action appears to propose a modification of Brody's metal substrate and Sato's insulating substrate. However, if Sato's insulating substrate were used instead of Brody's metal substrate, then the Brody would be rendered unsatisfactory for its intended purpose. That is, the Examiner's proposed modification or combination of the prior art appears to change the principle of operation

of the prior art invention being modified. Therefore, there is no suggestion or motivation to make the proposed modification, and the teachings of the references are not sufficient to render the claims *prima facie* obvious.

Further, please note that independent claims 48, 52 and 56 recite a layer comprising resin covering a thin film transistor. The present inventors have found that this structure is advantageous when a thin film transistor is formed over a flexible substrate, since a flexible substrate is vulnerable to external forces due to its flexibility. The resin layer of the present claims serves as a protective film from the external forces. The Applicant respectfully submits that Brody, Sato and Tanaka, either alone or in combination, do not recognize a problem with or a reasonable expectation of success as to why a resin layer should be formed so as to cover a thin film transistor, where the thin film transistor is formed over a flexible substrate.

Therefore, the Applicant respectfully submits that the Official Action has not provided a proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Brody, Sato and Tanaka or to combine reference teachings to achieve the claimed invention.

In the present application, it is respectfully submitted that the prior art of record, either alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

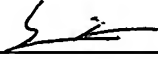
Paragraphs 6-11 of the Official Action rejects dependent claims 62, 63, 67-69 and 71, respectively, as obvious based on the combination of Brody, Sato, Tanaka and either U.S. Patent No. 5,712,496 to Takahashi, U.S. Patent No. 5,231,297 to

Nakayama, JP 62-93974 to Tsunohashi, U.S. Patent No. 4,636,038 to Kitahara, U.S. Patent No. 5,427,961 to Takenouchi or JP 5-299653 to Hirota, respectively.

Please incorporate the arguments above with respect to the deficiencies in Brody, Sato and Tanaka. Takahashi, Nakayama, Tsunohashi, Kitahara, Takenouchi and Hirota do not cure the deficiencies in Brody, Sato and Tanaka. The Official Action relies on Takahashi, Nakayama, Tsunohashi, Kitahara, Takenouchi and Hirota to allegedly teach the features of the dependent claims. Specifically, the Official Action relies on Takahashi to allegedly teach microcrystalline silicon (page 8, Paper No. 20080927), on Nakayama to allegedly teach XeCl laser light (Id.), on Tsunohashi to allegedly teach a polyimide substrate (page 9, Id.), on Kitahara to allegedly teach an acrylic resin (page 10, Id.), on Takenouchi to allegedly teach a particular composition of a resinous layer (pages 10-11, Id.), and on Hirota to allegedly teach a coplanar thin film transistor (page 11, Id.). However, Brody, Sato, Tanaka and one of Takahashi, Nakayama, Sato, Tsunohashi, Kitahara, Takenouchi and Hirota, either alone or in combination, do not teach or suggest why one of ordinary skill in the art at the time of the present invention would have had sufficient reason to modify Brody, Sato and Tanaka or to combine reference teachings to achieve the claimed invention. Since there is insufficient reason to combine Brody, Sato and Tanaka, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

  
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